

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

20th May 2019

Dear Mr Pierce

**Amendments to Chapter 7 of the NER (Metering) clause 7.3.2 Role of the Metering Coordinator
Amendments to NERR to introduce Metering Coordinator planned interruptions**

Doug Ross (the proponent) is the Chairperson of the Competitive Metering Industry Group (CMIG) which is an industry body representing 7 electricity Metering Service Providers operating in the National Electricity Market (NEM). These businesses collectively install the overwhelming majority of electricity meters in the NEM.

The proponent has developed this rule change proposal with the support of CMIG's Metering Service Provider members and in consultation with the retailer members of the Australian Energy Council (AEC). The views of distribution businesses have also been sort and considered in the drafting of this proposal.

The Proponent submits this rule change request to the Australian Energy Market Commission, in line with the requirements of 92(1)(a) of the [National Electricity Law](#) and 243(1) of the [National Energy Retail Law](#) and their associated regulations.

This rule change seeks to resolve issues being experienced by metering providers interrupting supply for the purpose of carrying out metering works as detailed in the [CMIG issues paper](#) published in May 2018 (included in Appendix A).

This submission has been developed with the National Electricity Objective (NEO) and the National Energy Retail Objective (NERO) in mind. It is additionally informed by a working group comprising Metering, Distributor and Retailer experts.

The rule change proposal and associated descriptions of the proposed rules are attached for your consideration.

Should you have any questions in relation to this rule change request please contact Doug Ross, telephone 0417205395 or on email doug.ross@competitivemetering.com.au.

Yours sincerely



Doug Ross
Chairman - CMIG

1 Background

The AEMC's 2015 Competition in Metering reforms transferred the responsibility for metering for Small Customers from the Distribution Networks to Retailers. Changes to metering arrangements are now driven by the customer for 'New Connections' and 'Additions and Alterations', the Retailer for Retailer led new deployments and by distribution businesses in the case of Type 5 & 6 meter malfunctions and family failures.

As part of the responsibility assumed by the Retailer, the new rules require that a Metering Coordinator (MC) is appointed by the Retailer to take responsibility for the metering installation at each site.

When metering work is requested the MC is required to ensure an appropriately qualified Metering Provider (MP) is nominated to perform the work. In all jurisdictions, metering work is considered electrical work that is required to be carried out by an appropriately licenced electrical worker. Under jurisdictional Workplace Health and Safety legislation, electrical workers are required to isolate supply prior to carrying out any electrical works. When the MP attends a site to undertake metering works, it is required to isolate supply to the metering installation so that the work can be undertaken safely.

A significant number of customers in the NEM live in premises that share a single supply service from the distribution network with one or more of their neighbours. In many cases, these multioccupancy premises also share a single Service Protection Device (SPD) at the point of connection to the distribution network, which means supply to an individual premise cannot be isolated without interrupting supply to a number of other customers.

2 Issue

Since the commencement of the competition in metering reform, it has become common for customers in multioccupancies to have their meter installations delayed because the metering provider has been unable to interrupt their supply in order to change their meter. One common reason for not being able to interrupt a customers supply is when supply to other customers needs to be interrupted to affect the meter change. Under Subrule 59C of the NERR, the Retailer can initiate an interruption of supply to their own customers however, they are not permitted to interrupt supply to customers other than their own (Subrule 59B(b)(ii) of the NERR).

Distributors can be requested to interrupt supply to multiple customers under Subrule 91A of the NERR such that metering works can be carried out, however, utilising this service typically has long lead times and high costs that deliver a poor customer service experience. The cost associated with a distributor coordinated interruption can also be disproportionate to the size of the site and the number of customers impacted. For example, waiting 6-7 weeks for a coordinated visit by the distributor to allow a planned interruption for a small number of customers at a shared fused site is inefficient and expensive relative to the customer metering works undertaken.

Historically, distribution businesses have avoided interrupting all customers on a shared fuse by carrying out metering works using work practices that enabled an individual premise to be isolated 'live', hence removing the need to interrupt supply to the other customers. Network businesses were permitted to perform live isolation in these circumstances under several exemptions in the jurisdictional Workplace Health and Safety legislation.

These exemptions are not available to metering technicians (as licenced electrical workers) and therefore supply must be isolated to carry out metering works. It is unlikely that jurisdictional legislation will be changed to allow electrical workers engaged by MPs to carry out live work. In fact, to improve safety outcomes for all electrical workers, safety regulators remain focused on enforcing the prohibition on live electrical work under existing HSE legislation.

The recent Metering Installation Time Frames rule change has increased the focus on installing metering equipment in a time frame that matches customer expectations. Multioccupancies have been exempted from the installation time frame requirements because of the issues being experienced interrupting supply under the current rules to exchange meters. This means customers in multioccupancies with shared fusing arrangements are experiencing reduced service levels under the competition in metering reform.

3 Proposed resolution

The proponent's rule change proposes that Metering Coordinators be given the same rights and obligations under the NER and NERR currently provided to Distributors to arrange and effect planned interruptions on any customer for the purpose of safely and efficiently carrying out metering works.

While developing this rule change, it has been considered whether allowing retailers to interrupt supply on other retailers' customers would enable improved outcomes for customers in multioccupancies. In considering this, retailers have raised concerns about customers being confused by being contacted by a different retailer to their own to notify them of an interruption. The metering coordinator is seen as a more independent party who can interact directly with customers and arrange interruptions. The majority of customers negatively impacted by the current interruption restrictions are those in smaller multioccupancies. This rule change will give the metering coordinator the ability via the metering provider to obtain consent from affected while the meter installation is taking place. This will make a significant improvement to customer service outcomes in small multioccupancies allowing the metering installation to occur on the first visit on many occasions.

The proponent has considered whether the rules should restrict MC's to only carrying out planned interruptions that effect a small numbers of customers (e.g. less than 12). In considering this issue with industry, it has been agreed that it is not necessary for the rules to be that prescriptive and restrict interruptions to a maximum number of customers.

This rule change proposes that the same obligations to notify customers and penalties be placed on MC's as currently exists on retailers under the NERR. The proponent expects that these obligations will limit the number of customers an MC is prepared to initiate an interruption on, as compliance with their obligations under the rules becomes more onerous on larger sites.

However, if an MC is able to coordinate an interruption at a large site and manage their obligations under the rules, this should be permitted. An example of this may be a major switch board upgrade at a large multi occupancy where the building manager may be able to assist coordinating the interruption notifications with the building tenants.

The proponent has also considered the method to be used to notify retailers and distributors of planned interruptions. It is believed that a similar approach to that used in the metering installations timeframe rule change is appropriate. I.e. requiring participants to use the B2B eHub unless an alternate method of notification is agreed.

4 Contribution to National Electricity Objective and the National Energy Retail Objective

The National Electricity Objective (NEO) states that:

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to-

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.”

The National Energy Retail Objective (NERO), as stated in the National Energy Retail Law, is:

“...to promote efficient investment in, and efficient operation and use of, energy services for the long-term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply of energy.”

The National Electricity Rules (NER) only permits Retailers and Distributors to initiate planned interruptions. There are a number of scenario's, particularly at smaller multiple occupancy installations where customers are negatively impacted when a Metering Provider is unable to interact directly with the affected customers on site and negotiate an interruption at a time convenient to all parties.

When Distributors carry out a planned interruption to a multiple occupancy, they would typically visit the site, identify the affected customers, provide them notice of the interruption, then return after the notice period and carry out the interruption. In the case of metering, coordination is required to ensure the Metering Provider is on site when the interruption occurs. By allowing the Meter Coordinator to initiate and manage the interruption, coordination will be significantly reduced as the MC and MP are typically closely aligned (either corporately or commercially). The proponent considers that this proposal meets the NEO and NERO by creating more flexibility in the service offering metering coordinators and metering providers provide to retailers to have metering equipment installed in a timely manner. The proponent considers it unacceptable that the restrictions on arranging supply interruptions under the current rules mean customers living in multioccupancies with shared fusing experience delays in having their metering installed. Allowing the metering coordinator to manage the interruptions required to install metering equipment will be more efficient and allow the Metering Coordinator and Retailer to offer customers the most flexible and cost-effective means to receiving a meter.

5 Expected Benefits and Costs

In the proponent's opinion, this rule change will improve lead times in undertaking metering works for customers where there is shared fusing. Many of the sites effected by the current rule restrictions on interruptions are smaller sites with only 2 or 3 customers (e.g. duplexes). This rule change will enable many of these meter installations to be resolved on the first visit by allowing the metering coordinator to get the affected customers consent and then proceeding to complete the meter install on the first visit. Experience to date has shown that coordination of interruptions either with retailers or distributors can take a number of weeks and cost hundreds of dollars if a distributor is required to visit the site and effect the interruption.

As a minimum, the MC/MP resources required to coordinate with the distributor are avoided and the distributor charges for undertaking the isolation are removed from the cost of the job. A distributor typically charges between \$150 and \$700 for providing a multiple occupancy isolation. If these costs cannot be avoided, they are typically ultimately recovered from customers either directly or via a retailers fixed charges. Resolving the meter installation on the first visit is the most efficient and best outcome for the customer.

Where appropriate, Distributors may still be used to coordinate interruptions for more complex sites. The vast majority of delays and costs being experienced at the moment relate to smaller multioccupancies where the inability to isolate supply on a customer who is not a customer of the retailer the works are being done for means the job needs to be aborted, even if the affected customer provides consent on site for the interruption.

6 Metering Coordinator interruption suggested rule changes

6.1 Chapter 7 of NER

7.3.2 Role of the Metering Coordinator

Add at end of 7.3.2(i) and make section number (5)

Metering Coordinator interruption to supply

A Metering Coordinator may, subject to and in accordance with any requirements of the energy laws, arrange a *Metering Coordinator planned interruption* on any customer for the purposes of installing, maintaining, repairing or replacing an electricity meter.

7.8.10A Timeframes for meters to be installed – new connection

Remove 7.8.10A(b) (3) installing the meter requires interrupting supply to another retail customer; or

7.8.10B Timeframes for meters to be installed – where a connection service is not required

Remove 7.8.10(B)(b) (3) installing the meter requires interrupting supply to another retail customer; or

7.8.10C Timeframes for meters to be installed – where a connection alteration is required

Remove 7.8.10C(b) (3) installing the meter requires interrupting supply to another retail customer;

6.2 NERR

Add

Metering Coordinator planned interruption to supply

Definitions

In this Division:

metering coordinator planned interruption means an *interruption* of the supply of electricity to a customer for:

- (a) is for the purposes of installing, maintaining, repairing or replacing an electricity meter; and
- (b) may involve *interrupting* the supply of electricity to a customer who is not the customer of the retailer arranging the metering installation; and
- (c) is not a *retailer planned interruption* or a *distributor planned interruption*;

Metering Coordinator Planned interruption to supply

1. A metering coordinator may, subject to and in accordance with any requirements of the energy laws, arrange a *metering coordinator planned interruption* by:
 - a. giving the affected customer the notice under subrule (2); or
 - b. other than in the circumstances described in paragraph (c), obtaining the affected customer's explicit consent to the interruption occurring:
 - i. on any day within a date range of 5 business days; or
 - ii. on a specified date,
 in which case subrule (1A) applies; or
 - c. where a person residing at the premises requires life support equipment, obtaining the affected customer's explicit consent to the interruption occurring on a specified date, in which case subrule (1A) applies.
2. If the metering coordinator obtains the consent of the affected customer pursuant to subrule (1)(b) or (1)(c):
 - a. the metering coordinator must retain the record of consent for a period of at least 2 years in a format and including such information to enable the metering coordinator to answer enquiries from the customer relating to the consent; and
 - b. subrules (2), (3) and (4) regarding planned interruption notices will not apply.
3. If the metering coordinator has not obtained an affected customer's consent to the metering coordinator planned interruption occurring within a date range or on a specified date in accordance with subrule (1) (as applicable), the metering coordinator must notify the affected customer of the retailer planned interruption by any appropriate means at least 4 business days before the date of the interruption.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

4. The notification must:
 - a. specify the expected date, time and duration of the *metering coordinator planned interruption*; and
 - b. include a 24 hour telephone number for enquiries (the charge for which is no more than the cost of a local call); and
 - c. include a statement that any enquiries regarding the *metering coordinator planned interruption* are to be directed to the metering coordinator.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

5. In the case of a *metering coordinator planned interruption*, the metering coordinator must use its best endeavours to arrange to restore the customer's supply as soon as possible.

Note:

Rule 107(4) provides that Part 6 (relating to de-energisation or disconnection of premises) does not apply to interruptions under this rule.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

Add

99B Information on metering coordinator planned interruptions

1. The metering coordinator:
 - a. must notify the distributor and retailer of planned interruptions and specify the expected date, time and duration of the retailer planned interruption; and
 - b. must provide the notification under paragraph (a) (as applicable):
 - i. on the same day the customer provides consent to the metering coordinator under subrule XXX; or
 - ii. within the same time period as the retailer is required to notify the customer under subrule XXX.
2. Any communications required between the metering coordinator and the retailer or Distribution Network Service Provider under paragraph 1 (a) must be made promptly through the B2B e-Hub or any other agreed method.
3. The information to be given by the metering coordinator to the retailer and the distributor under subrule (1) must also include the NMI and the address of the specific premises affected by the metering coordinator planned interruption.
4. If a customer contacts the metering coordinator about a metering coordinator planned interruption requested or proposed by the metering coordinator, the metering coordinator must:
 - a. give the customer the information provided by their retailer under this rule.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

Introduction

The AEMC's 2015 Competition in Metering reforms transferred the responsibility for metering for Small Customers from the Distribution Networks to Retailers. Changes to metering arrangements will be driven by the customer for 'New Connections' and 'Adds and alts', the retailer for retailer led new deployments and by the Network businesses in the case of meter malfunctions and family failures.

As part of the responsibility assumed by the retailer the new rules require that a contestable Metering Coordinator (MC) is appointed by the retailer to take responsibility for the metering installation at each site.

When metering work is requested the MC is required to ensure an appropriately qualified meter provider (MP) is nominated to perform the work. The MP is required to attend site, isolate supply to the metering installation so that the work can be undertaken safely, install new or replace existing meters.

While this appears to be a simple enough process, there are a number of real issues related to the ability to isolate supply that impacts the ability for the MP to perform the metering work.

Where isolation of a metering installation cannot be achieved at the time of the scheduled visit the metering work must be deferred and rescheduled to a later date, with the following consequences:

- Customer frustration and inconvenience as scheduled work cannot be completed and must be rescheduled.
- Inefficient delivery of meter deployments as MP's are required to visit sites on multiple occasions.
- A more complex, costly and lengthy process, driven by:
 - Need for coordinated visits with other parties (DB's etc)
 - Compliance with the current rules related to interruption notice periods to affected customers
 - Long lead times and high cost to engage DB to perform temporary isolation
- Higher overall costs which will be ultimately borne by the customer.

Statement of issues

To deliver low customer impact, cost effective and efficient deployment of meters requires the successful completion of metering works at the first attempt – 'One job, one visit'.

As the impacts resulting from the failure to successfully complete the metering work at the initial attempt are material, focus should be on removing all impediments to the 'one job, one visit' proposition. These include:

- Lack of available site information prior to visiting site
- Regulatory environments that constrains the ability for the MC to interrupt supply to other customers to complete work.
- Lack of clarity of where alternate work practices can be used i.e. Live isolation procedures

- Lack of authority for MC to operate some types of equipment (where it is safe to do so)

Where work cannot be completed as scheduled and the MC currently has no other option but to engage the DB to assist. This leads to a lengthy and costly process which could be reduced if the regulatory environments were changed.

This discussion paper sets out the key challenges related to isolating the site to perform the metering works.

Description of isolation points

Depending on the Distribution Network, the type of reticulation (Overhead or Underground) and the age of the installation isolation points can be in many places. Refer figure 1:

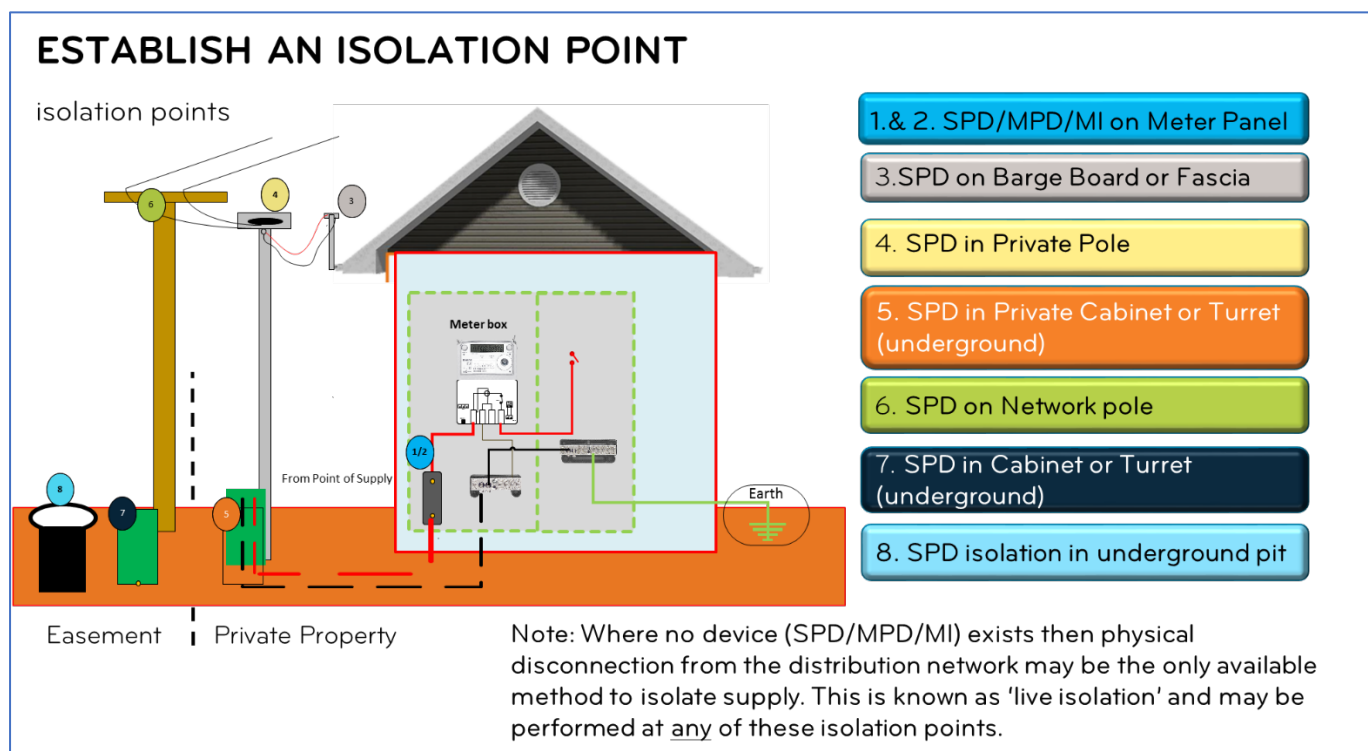


FIGURE 1: POSSIBLE ISOLATION POINTS FOR METERING INSTALLATIONS

1. SPD on Meter Panel	NSW	✓	QLD	✓	SA	✓
2. MPD/MIP on Meter Panel						
3. SPD on Barge Board or Fascia						
4. SPD on Private Pole						
5. SPD in Private Cabinet or Turret (Underground)	NSW	*ASP	QLD	✓	SA	✓
6. SPD on DB Pole						
7. SPD in DB Cabinet or Turret (Underground)						
8. SPD in DB underground pit	NSW	*ASP	QLD	✓	SA	x

*ASP means an ASP can be engaged to perform the live isolation and/or operate the isolation equipment.

Typically, where isolation of a site to affect metering work is required evaluation of the appropriate isolation point will start at the meter board and move back towards the distribution network.

‘Unable to isolate’ scenarios

Isolation issues generally fall into the following categories

<p>Shared fusing (Multi-Occupancies)</p>	<ul style="list-style-type: none"> • These are the result legacy regulation that permitted a single isolation point to service multiple premises (current regulation no longer permit these arrangements). • Shared fusing sites include metering installations with just one other NMI impacted e.g. Duplex, to installations with 10’s of NMI’s i.e. multi-unit apartment block. • Is common across all jurisdictions. • Power-of-choice reforms do not permit the retailer to interrupt supply to customers of another retailer. Only option is to engage DB to perform Temporary Isolation. • MP is unable to complete the planned work on initial visit <p>Shared fusing is currently the largest reason for being unable to isolate supply. Refer to examples 1 – 3 in appendix B for shared fusing examples.</p>
<p>Missing or non-operable isolation point</p>	<ul style="list-style-type: none"> • Usually the result of a site defect, safety hazard, or where no operable isolation device exists or is available. • Usually only a single premise is impacted but maybe a multi-occupancy as well. • MP is unable to complete the planned work on initial visit but may be able to engage a qualified party to assist. If not, DB to engage to perform Temporary Isolation. • Customer may be requested to address any defect. <p>Refer to examples 4 – 8 in appendix B for non-operable isolation points.</p>
<p>MC not authorised to operate isolation equipment</p>	<ul style="list-style-type: none"> • Isolation point is readily accessible but MP has not been authorised to operate this equipment. • Rules differ between jurisdictions and networks.
<p>Customers at a large multi-occupancy will experience multiple supply interruptions as a consequence of family failures replacements</p>	<ul style="list-style-type: none"> • Occurs where shared fusing exists • Likely to be material for customers at a larger multi-occupancy (> 3 or more customers) • Family failures on multi-occupancies are likely to impact more than one meter • Under POC the remediation for each of these meters falls to the affected customer’s retailer. • Without coordination between all customers of the multi-occupancy are likely to experience multiple interruptions as individual meters are changed at different times. <p>Refer to example 3 in appendix B for large Multi-Occupancies shared fusing example.</p>

Impacted services

Work requiring a like-for-like meter exchange (family failure replacements, meter malfunctions and retailer new meter deployments) is likely to be the bulk of the work impacted by isolation issues however in circumstances where new connections share existing metering installation will also be impacted.

Volume of work deferred due to isolation issues.

	NSW	QLD	SA
% of scheduled work not completed on first attempt due to isolation issues	<i>TBC</i>	<i>TBC</i>	<i>TBC</i>

Process required to engage DB to perform isolation

Where work is deferred, the typical process to engage the DB and complete the scheduled work is illustrated in the following table (as well as the minimum number of visits). Due to scheduling requirements imposed by the DB it is expected that a 25 to 35 business days' delay will be experienced by the customer.

Step		Cumulative Person Visits
1	MP attend site and determines unresolvable isolation issues and must defer work	1
2	MP to inform the retailer of the deferral	
3	Retailer to engage the Network business to perform the isolation	
4	The Network business to perform an initial visit to scope the work and to identify the impacted customers	2
5	Where shared fusing identified, the network will prepare and issue interruption notices to the affected customers	4
6	Coordination is required between DB, metering provider, retailer and potentially customer to ensure all parties are at the site, at the required time.	
7	DB attends site at the schedule time in coordination with the Metering provider to isolate the site to allow the MP to perform the works.	

Steps to minimise deferral to metering works

As demonstrated in the table above, the engagement of the DB to perform the temporary isolation comes at a material cost, therefore the removal of impediments that stop the MC from completing the work at the first attempt thus avoiding the deferral should be the focus. Adoption of the following mitigation items are expected to reduce the level of deferral of metering works.

1. Solicit more information about the site before initial visit.

Identification of site issues before physical attendance occurs will allow the MP to better manage customer and retailer expectations on cost and timeliness of work, help identify the likely isolation issues and will contribute to reducing the deferral rate of scheduled work. Where the metering work is driven by the customer (i.e. New connections or Adds and Alts) technical information is likely to be available from the customers REC who has been engaged to perform the customer side electrical work. The REC should be able to provide an accurate assessment of isolation issues the MP will find when they attend the site. Most retailers have forms or some other collateral supporting the new connections and adds and alts processes that are filled out by the customer and their REC. These should be updated to request relevant technical isolation information. e.g. 'Can you home be isolated from supply without affecting other customers?'. For metering works that are not driven by the customer (meter faults, family failures, retailer new deployments) it is less likely that accurate technical information about the isolation arrangements will be available prior to a site visit. Provision of photos of the metering installation by the customer may be useful in identifying potential shared fusing situations or other obvious issues that commonly stop meter exchanges from proceeding e.g. defective meter boards, not enough space on meter board etc.

For metering works that are not driven by the customer (meter faults, family failures, retailer new deployments) it is less likely that accurate technical information about the isolation arrangements will be available prior to a site visit. Provision of photos of the metering installation by the customer may be useful in identifying potential shared fusing situations or other obvious issues that commonly stop meter exchanges from proceeding e.g. defective meter boards, not enough space on meter board etc.

2. Enable the MC to interrupt supply of customers who are not the customer of the retailer who has requested the work.

Currently the MC is unable to interrupt supply if it affects customers other than those requesting or having the metering works done. While the POC rule changes have transferred the responsibility for metering from the LNSP to Retailer and MC it has not transferred all the regulatory levers that make the work efficient. While the primary customer will have received the required 4-business day notice under the NERR, any secondary customers (most likely only be identified at the time of the site visit) will not have received this notification. Authorising the MC to affect a short interruption to these secondary customers is an effective method of reducing the rate of deferrals and make metering work more efficient – DB's have always had this right). Questions related to notification to secondary customers' needs to be addressed however customers should be able to waive the notification period (as is currently proposed by the Australian Energy Council rule change). In situations where only one or two other customers are impacted, seeking permission in person from the secondary customers on the day may allow the work to proceed. Should the MC be authorised to perform the isolation then they will also take on the responsibility of issuing the interruption notifications. Note: the outage expected for a secondary customer is likely to be less than the primary customer (10 to 20 minutes). This interruption will allow the MP to install an isolation point for the primary customer to allow that customer to remain off supply while supply to the secondary customer is re-established.

In order to give MC the authority to interrupt supply then changes to the NERR will be required. See appendix A for potential drafting changes to provide this authority.

3. Utilising Live Isolation procedures where it is safe to do so.

Use of a live isolation procedure is available to metering businesses. Live isolation may be done where there is no other reasonable isolation method available and can be used to facilitate the installation of a meter protection device. Use of live isolation must meet jurisdictional HSE legislation and the scenarios under which it may be used may vary by metering companies based on the businesses risk profile.

While the use of live isolation may appear to be a panacea for a number of the isolation issues discussed in this paper, there will be many situations where physical limitations at the site will mean the safety requirements for this procedure will not be met and deferral of the work and engagement of the DB to isolate will be required.

The use of live isolation procedures to carry out work is questionable under workplace health and safety legislation where electrical workers are required to carry out work deenergised. The NEM rules not permitting isolation and hence elevating risks for electrical workers may be problematic.

4. Allow MC to operate equipment (with appropriate training) that they are currently not authorised to do.

Operation of isolation devices by the MC varies by jurisdiction. In all jurisdictions, the MC may operate an isolation device (fuse) if it is on the meter panel. If an isolation point is on a customer's pole or other such infrastructure the MC is authorised to operate in QLD and SA however not in NSW. In NSW, an appropriately authorised ASP may be engaged to interrupt supply to affect a meter exchange. The table below describes the isolation points and who is entitled to operate them in different jurisdictions.

1. SPD on Meter Panel	NSW	✓	QLD	✓	SA	✓
2. MPD/MIP on Meter Panel						
3. SPD on Barge Board or Fascia						
4. SPD on Private Pole						
5. SPD in Private Cabinet or Turret (Underground)	NSW	*ASP	QLD	✓	SA	✓
6. SPD on DB Pole						
7. SPD in DB Cabinet or Turret (Underground)						
8. SPD in DB underground pit	NSW	*ASP	QLD	✓	SA	x

*ASP means an ASP can be engaged to perform the live isolation and/or operate the isolation equipment.

Where deferral of metering works cannot be avoided

Once isolation issues have been identified and cannot be addresses at the time of the initial visit the only option currently available to the MC is to defer the works and for the DB to engaged to perform a 'Temporary Isolation'. DB's have advised that they require a 25-35 business day lead time to

schedule this work. While costs for this service have not yet been fully exposed it is expected that DB's will charge more than \$400 per event.

A number of DB's have advised that they will only perform this service at a specified time of day e.g. 8am to 8:30am, and that contestable metering providers are currently identifying approximately 30 – 50 jobs per day will require the DB to attend. It is expected that this volume is likely to increase as contestable providers work through the aged 'family failure' meter fleets. Given the constraints to perform temporary isolations imposed by the DB's, it is difficult to see how DB's will service the anticipated demand for temporary Isolations requests without adding further delay to the customer.

To address the negative impacts of this delay and associated high costs, the following initiatives should be considered.

5. Enable the MC to issue interruption notices and interrupt supply of customers who are not the customer of the retailer who has requested the work.

Where shared fusing arrangements have resulted in a deferral of metering work, rather than engaging the DB to perform the temporary isolation of the site it is reasonable that the MC, with appropriately qualified resources should be able to perform this work as long as notification requirements are met. Authorising the MC to perform this work is expected to reduce the number of visits to the site by 50% compared to engaging the DB. To enable the MC to issue the appropriate notifications and perform the interruption the MC must also:

- have access existing market report - NMI Discovery type 1 which uses meter number and/or address details (collected during the initial visit) to determine the current retailer.
- be authorised to request customer contact details (including Life Support details) from the current retailer (or DB) for the purposes of interruption notification.
- provide the appropriate notices to the customer and each customer's retailer
- be authorised to interrupt supply for a short period to allow the installation of the appropriate fusing (meter protection device) on the primary NMI.

6. Adopt a more equitable cost recovery mechanism related to the isolation of more complex sites.

As previously discussed, isolation issues typically arise from legacy metering arrangements put in place by the DB under regulations that were permitted at the time. The added cost related to isolation at these sites is material. To impose these increased costs directly to the customer or the customer's retailer appears to be less than equitable when the metering arrangements were established by the DB. Where the 'Temporary Isolation' is performed by the DB, the retailers will receive the charge and will have the choice to pass this on or share it across their customer base. A more equitable approach may be for these charges to be included in the appropriate DB tariff (supply charge?) so that these are shared across the entire customer base.

Multiple supply interruptions to Multi-Occupancy customers

This issue is not an isolation issue per se, but a negative customer experience issue caused by multiple isolations events at larger multi-occupancy sites, typically to address family failures. This is likely to be material at sites with 3 or more customers.

It is anticipated that these will become an issue when:

- a family failure for a set of meters is declared
- these appear on a multi-occupancy - Family failures on multi-occupancies are likely to impact more than one meter
- shared fusing arrangements exist – isolation to an individual meter without impacting other customers is not possible.

Under POC the remediation for each of these meters falls to the retailer. Upon notification from the DB each retailer must assign an MC for each failing meter. The MC is required to resolve the 'malfunction' within 10 days or else raise an AEMO exemption with a resolution plan providing a date by which the malfunction will be addressed.

Without coordination between retailers and/or MC's to arrange metering works at the same time, customers are likely to experience multiple interruptions as each MC exchange their own meters.

A potential strategy to avoid these issues are:

- Seek better information from the DB – The DB is the only party that has any opportunity to identify that a family failure impacts a multi-occupancy. DB's currently inform retailers at the individual NMI's level. Should the retailer be informed that a family failed NMI is potentially part of a multi-occupancy then the retailers can inform the MC who can take appropriate steps to confirm this and take a more managed approach to the minimise customer impacts. Simple address matching may indicate the potential for multiple family failures at multi-occupancies.
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- MC should be given the ability to determine the current retailers for family failed meters found at a multi-occupancy shared fusing site. This would allow the MC to contact the retailers and advise of the situation and allow for a coordinated visit to perform the meter exchanges under a single isolation. This would require an MC being able to use NMI discovery type 1 using address and/or meter serial number.
- An alternative is for the DB's to attend these sites ahead of the metering work and install individual fusing for each family failed meter to allow a subsequent visit arranged by the MC to perform the meter exchange with a shared interruption.

Appendix A

Meter Coordinator planned interruption means an *interruption* of the supply of electricity to a premise that is the consequence of performing a Retailer planned interruption under Rule 59C

Meter Coordinator interruption to supply

(1) A Metering Coordinator may, subject to and in accordance with any requirements of the energy laws, arrange a *Meter Coordinator planned interruption*.

(2) The Metering Coordinator must notify each affected customer by any appropriate means of the *Meter Coordinator planned interruption* at least 4 business days before the date of the *interruption* unless varied by the customer.

(3) The notification must:

(a) specify the expected date, time and duration of the *Meter Coordinator planned interruption*; and

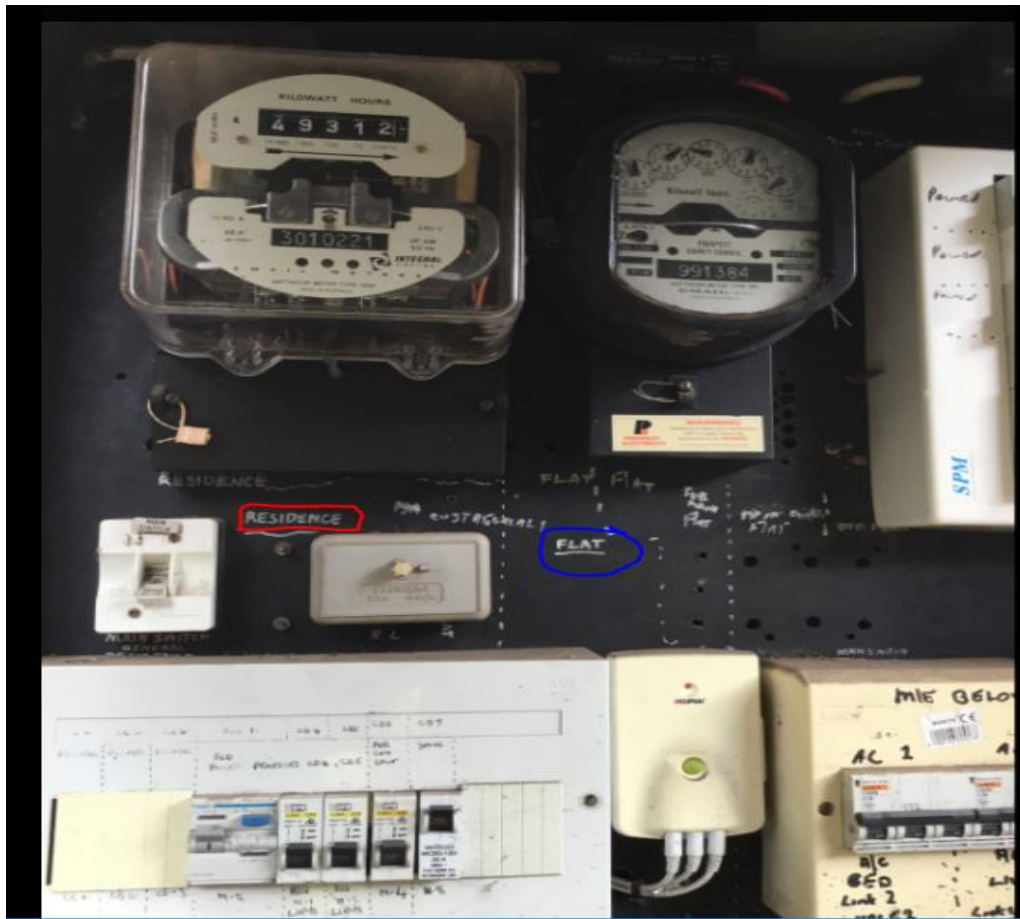
(b) include a telephone number for enquiries (the charge for which is no more than the cost of a local call); and

(c) include a statement that any enquiries regarding the *Meter Coordinator planned interruption* are to be directed to the **Meter Coordinator**.

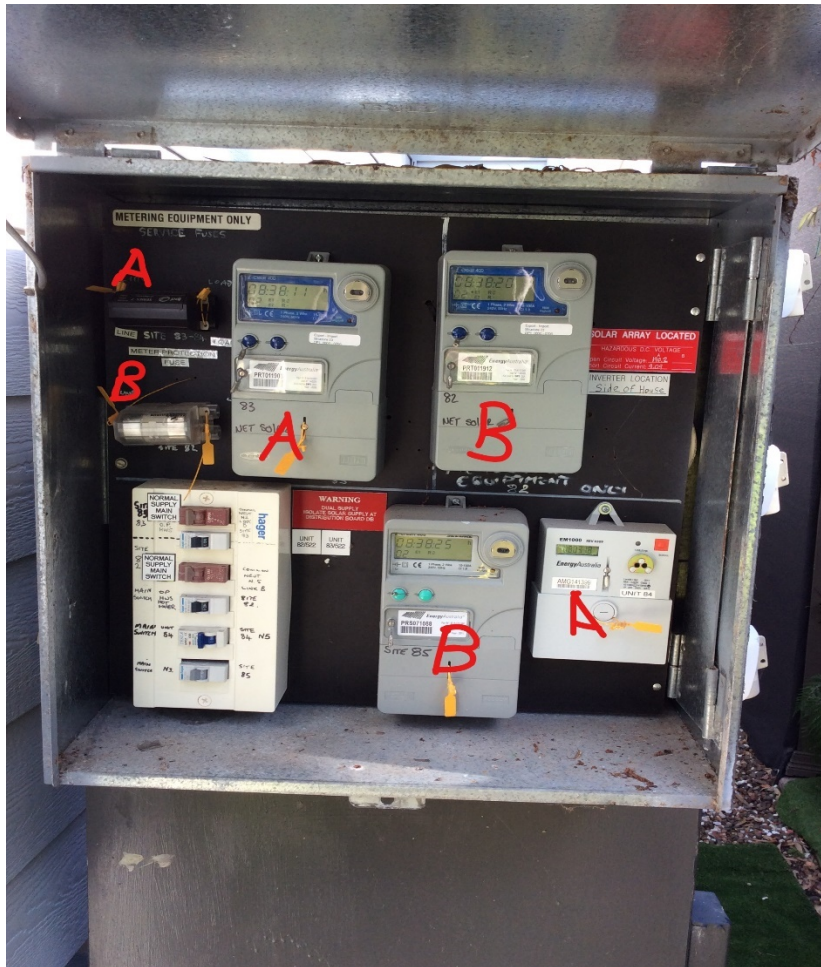
Appendix B

Shared fusing

Example 1. - Below is a simple example of a shared metering panel for metering for two NMI's. These meters share a single service fuse.



Example 2. - The following picture shows a board that has four separate NMI's fused by two service fuses.

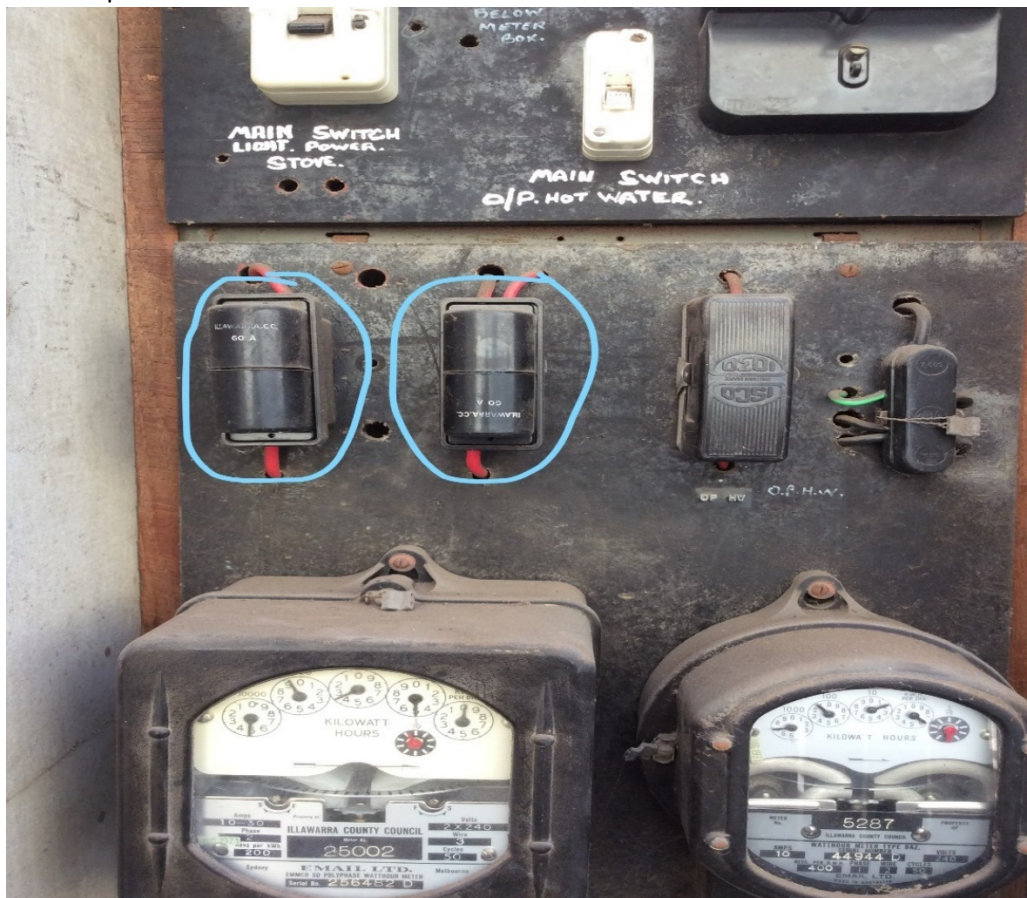


Example 3. - The following picture shows a more complex board services many NMI' with a single Isolation point.



No reasonable isolation point

Example 4. - A service fuse exists but its operation will present a safety hazard - Examples of this are legacy asbestos fuse holders that have potentially degraded to a point where operation has the potential to expose hazardous material to the technician. Network businesses have instructed MC's not to operate this infrastructure. As the MC has no other method of isolation they must defer the metering works until a coordinated revisit with the DB or other suitably qualified person who will perform the isolation so that metering work can compete.



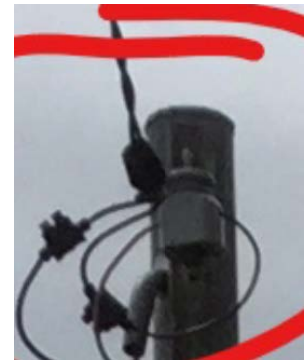
Example 5. - Unable to access fuse – this is where the point of isolation exists but is no longer accessible. In this example a carport has been constructed that limits safe access to the service fuse. This will be in contravention of the customer's connection agreement. It is likely a DB would require the customer to resolve this issue.



Example 6. - Unable to access fuse. This following example shows the isolation point obscured by vegetation. Customer would be required to resolve this issue before metering work can be performed.



Example 7. – Safety issue - This is where any attempt to perform isolation may be a HSE issue or result in rapid deterioration of the site and potential prolonged off-supply situation. The example below is a customer pole that was accessed as unstable and not fit for a ladder approach.



Example 8. - Unable to access fuse - In the below example porcelain bell housing fitted are difficult to operate and are subject to total failure when pulled with a fuse stick. Should they fail a simple job becomes much more complex with a customer left off supply.



1 Metering Coordinator interruption draft suggested rule changes

1.1 Chapter 7 of NER

7.3.2 Role of the Metering Coordinator

Add at end of 7.3.2(i) and make section number (5)

Metering Coordinator interruption to supply

A Metering Coordinator may, subject to and in accordance with any requirements of the energy laws, arrange a *Metering Coordinator planned interruption* on any customer for the purposes of installing, maintaining, repairing or replacing an electricity meter.

7.8.10A Timeframes for meters to be installed – new connection

Remove 7.8.10A(b) (3) installing the meter requires interrupting supply to another retail customer; or

7.8.10B Timeframes for meters to be installed – where a connection service is not required

Remove 7.8.10(B)(b) (3) installing the meter requires interrupting supply to another retail customer; or

7.8.10C Timeframes for meters to be installed – where a connection alteration is required

Remove 7.8.10C(b) (3) installing the meter requires interrupting supply to another retail customer;

1.2 NERR

Add

Metering Coordinator planned interruption to supply

Definitions

In this Division:

metering coordinator planned interruption means an *interruption* of the supply of electricity to a customer for:

- (a) is for the purposes of installing, maintaining, repairing or replacing an electricity meter; and
- (b) may involve *interrupting* the supply of electricity to a customer who is not the customer of the retailer arranging the metering installation; and
- (c) is not a *retailer planned interruption* or a *distributor planned interruption*;

Metering Coordinator Planned interruption to supply

1. A metering coordinator may, subject to and in accordance with any requirements of the energy laws, arrange a *metering coordinator planned interruption* by:
 - a. giving the affected customer the notice under subrule (2); or
 - b. other than in the circumstances described in paragraph (c), obtaining the affected customer's explicit consent to the interruption occurring:
 - i. on any day within a date range of 5 business days; or
 - ii. on a specified date,

in which case subrule (1A) applies; or

- c. where a person residing at the premises requires life support equipment, obtaining the affected customer's explicit consent to the interruption occurring on a specified date, in which case subrule (1A) applies.

2. If the metering coordinator obtains the consent of the affected customer pursuant to subrule (1)(b) or (1)(c):
 - a. the metering coordinator must retain the record of consent for a period of at least 2 years in a format and including such information to enable the metering coordinator to answer enquiries from the customer relating to the consent; and
 - b. subrules (2), (3) and (4) regarding planned interruption notices will not apply.
3. If the metering coordinator has not obtained an affected customer's consent to the metering coordinator planned interruption occurring within a date range or on a specified date in accordance with subrule (1) (as applicable), the metering coordinator must notify the affected customer of the retailer planned interruption by any appropriate means at least 4 business days before the date of the interruption.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

4. The notification must:
 - a. specify the expected date, time and duration of the *metering coordinator planned interruption*; and
 - b. include a 24 hour telephone number for enquiries (the charge for which is no more than the cost of a local call); and
 - c. include a statement that any enquiries regarding the *metering coordinator planned interruption* are to be directed to the metering coordinator.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

5. In the case of a *metering coordinator planned interruption*, the metering coordinator must use its best endeavours to arrange to restore the customer's supply as soon as possible.

Note:

Rule 107(4) provides that Part 6 (relating to de-energisation or disconnection of premises) does not apply to interruptions under this rule.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

Add

99B Information on metering coordinator planned interruptions

1. The metering coordinator:

- a. must notify the distributor and retailer of planned interruptions and specify the expected date, time and duration of the retailer planned interruption; and
 - b. must provide the notification under paragraph (a) (as applicable):
 - i. on the same day the customer provides consent to the metering coordinator under subrule XXX; or
 - ii. within the same time period as the retailer is required to notify the customer under subrule XXX.
2. Any communications required between the metering coordinator and the retailer or Distribution Network Service Provider under paragraph 1 (a) must be made promptly through the B2B e-Hub or any other agreed method.
 3. The information to be given by the metering coordinator to the retailer and the distributor under subrule (1) must also include the NMI and the address of the specific premises affected by the metering coordinator planned interruption.
 4. If a customer contacts the metering coordinator about a metering coordinator planned interruption requested or proposed by the metering coordinator, the metering coordinator must:
 - a. give the customer the information provided by their retailer under this rule.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

Introduction

The AEMC's 2015 Competition in Metering reforms transferred the responsibility for metering for Small Customers from the Distribution Networks to Retailers. Changes to metering arrangements will be driven by the customer for 'New Connections' and 'Adds and alts', the retailer for retailer led new deployments and by the Network businesses in the case of meter malfunctions and family failures.

As part of the responsibility assumed by the retailer the new rules require that a contestable Metering Coordinator (MC) is appointed by the retailer to take responsibility for the metering installation at each site.

When metering work is requested the MC is required to ensure an appropriately qualified meter provider (MP) is nominated to perform the work. The MP is required to attend site, isolate supply to the metering installation so that the work can be undertaken safely, install new or replace existing meters.

While this appears to be a simple enough process, there are a number of real issues related to the ability to isolate supply that impacts the ability for the MP to perform the metering work.

Where isolation of a metering installation cannot be achieved at the time of the scheduled visit the metering work must be deferred and rescheduled to a later date, with the following consequences:

- Customer frustration and inconvenience as scheduled work cannot be completed and must be rescheduled.
- Inefficient delivery of meter deployments as MP's are required to visit sites on multiple occasions.
- A more complex, costly and lengthy process, driven by:
 - Need for coordinated visits with other parties (DB's etc)
 - Compliance with the current rules related to interruption notice periods to affected customers
 - Long lead times and high cost to engage DB to perform temporary isolation
- Higher overall costs which will be ultimately borne by the customer.

Statement of issues

To deliver low customer impact, cost effective and efficient deployment of meters requires the successful completion of metering works at the first attempt – 'One job, one visit'.

As the impacts resulting from the failure to successfully complete the metering work at the initial attempt are material, focus should be on removing all impediments to the 'one job, one visit' proposition. These include:

- Lack of available site information prior to visiting site
- Regulatory environments that constrains the ability for the MC to interrupt supply to other customers to complete work.
- Lack of clarity of where alternate work practices can be used i.e. Live isolation procedures

- Lack of authority for MC to operate some types of equipment (where it is safe to do so)

Where work cannot be completed as scheduled and the MC currently has no other option but to engage the DB to assist. This leads to a lengthy and costly process which could be reduced if the regulatory environments were changed.

This discussion paper sets out the key challenges related to isolating the site to perform the metering works.

Description of isolation points

Depending on the Distribution Network, the type of reticulation (Overhead or Underground) and the age of the installation isolation points can be in many places. Refer figure 1:

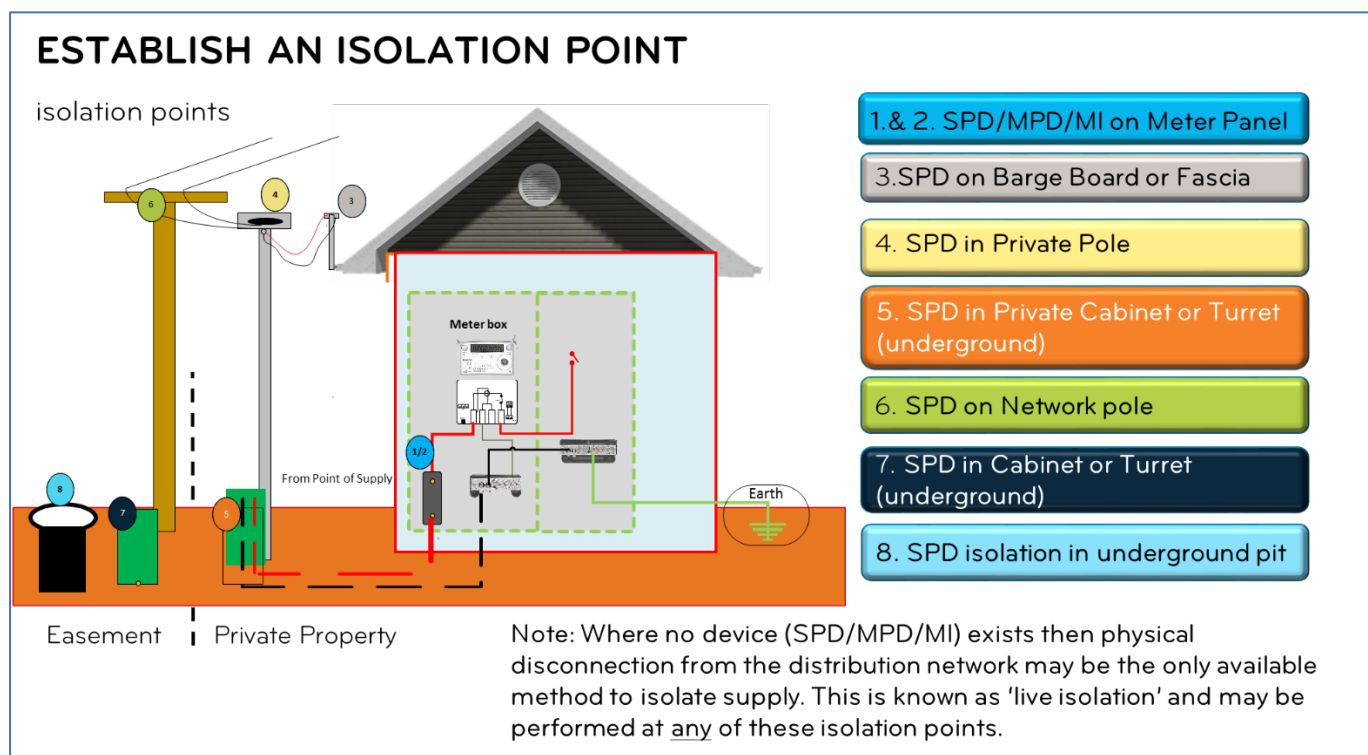


FIGURE 1: POSSIBLE ISOLATION POINTS FOR METERING INSTALLATIONS

1. SPD on Meter Panel	NSW	✓	QLD	✓	SA	✓
2. MPD/MIP on Meter Panel						
3. SPD on Barge Board or Fascia						
4. SPD on Private Pole						
5. SPD in Private Cabinet or Turret (Underground)	NSW	*ASP	QLD	✓	SA	✓
6. SPD on DB Pole						
7. SPD in DB Cabinet or Turret (Underground)						
8. SPD in DB underground pit	NSW	*ASP	QLD	✓	SA	x

*ASP means an ASP can be engaged to perform the live isolation and/or operate the isolation equipment.

Typically, where isolation of a site to affect metering work is required evaluation of the appropriate isolation point will start at the meter board and move back towards the distribution network.

‘Unable to isolate’ scenarios

Isolation issues generally fall into the following categories

Shared fusing (Multi-Occupancies)	<ul style="list-style-type: none"> • These are the result legacy regulation that permitted a single isolation point to service multiple premises (current regulation no longer permit these arrangements). • Shared fusing sites include metering installations with just one other NMI impacted e.g. Duplex, to installations with 10’s of NMI’s i.e. multi-unit apartment block. • Is common across all jurisdictions. • Power-of-choice reforms do not permit the retailer to interrupt supply to customers of another retailer. Only option is to engage DB to perform Temporary Isolation. • MP is unable to complete the planned work on initial visit <p>Shared fusing is currently the largest reason for being unable to isolate supply. Refer to examples 1 – 3 in appendix B for shared fusing examples.</p>
Missing or non-operable isolation point	<ul style="list-style-type: none"> • Usually the result of a site defect, safety hazard, or where no operable isolation device exists or is available. • Usually only a single premise is impacted but maybe a multi-occupancy as well. • MP is unable to complete the planned work on initial visit but may be able to engage a qualified party to assist. If not, DB to engage to perform Temporary Isolation. • Customer may be requested to address any defect. <p>Refer to examples 4 – 8 in appendix B for non-operable isolation points.</p>
MC not authorised to operate isolation equipment	<ul style="list-style-type: none"> • Isolation point is readily accessible but MP has not been authorised to operate this equipment. • Rules differ between jurisdictions and networks.
Customers at a large multi-occupancy will experience multiple supply interruptions as a consequence of family failures replacements	<ul style="list-style-type: none"> • Occurs where shared fusing exists • Likely to be material for customers at a larger multi-occupancy (> 3 or more customers) • Family failures on multi-occupancies are likely to impact more than one meter • Under POC the remediation for each of these meters falls to the affected customer’s retailer. • Without coordination between all customers of the multi-occupancy are likely to experience multiple interruptions as individual meters are changed at different times. <p>Refer to example 3 in appendix B for large Multi-Occupancies shared fusing example.</p>

Impacted services

Work requiring a like-for-like meter exchange (family failure replacements, meter malfunctions and retailer new meter deployments) is likely to be the bulk of the work impacted by isolation issues however in circumstances where new connections share existing metering installation will also be impacted.

Volume of work deferred due to isolation issues.

	NSW	QLD	SA
% of scheduled work not completed on first attempt due to isolation issues	<i>TBC</i>	<i>TBC</i>	<i>TBC</i>

Process required to engage DB to perform isolation

Where work is deferred, the typical process to engage the DB and complete the scheduled work is illustrated in the following table (as well as the minimum number of visits). Due to scheduling requirements imposed by the DB it is expected that a 25 to 35 business days' delay will be experienced by the customer.

Step		Cumulative Person Visits
1	MP attend site and determines unresolvable isolation issues and must defer work	1
2	MP to inform the retailer of the deferral	
3	Retailer to engage the Network business to perform the isolation	
4	The Network business to perform an initial visit to scope the work and to identify the impacted customers	2
5	Where shared fusing identified, the network will prepare and issue interruption notices to the affected customers	4
6	Coordination is required between DB, metering provider, retailer and potentially customer to ensure all parties are at the site, at the required time.	
7	DB attends site at the schedule time in coordination with the Metering provider to isolate the site to allow the MP to perform the works.	

Steps to minimise deferral to metering works

As demonstrated in the table above, the engagement of the DB to perform the temporary isolation comes at a material cost, therefore the removal of impediments that stop the MC from completing the work at the first attempt thus avoiding the deferral should be the focus. Adoption of the following mitigation items are expected to reduce the level of deferral of metering works.

1. Solicit more information about the site before initial visit.

Identification of site issues before physical attendance occurs will allow the MP to better manage customer and retailer expectations on cost and timeliness of work, help identify the likely isolation issues and will contribute to reducing the deferral rate of scheduled work. Where the metering work is driven by the customer (i.e. New connections or Adds and Alts) technical information is likely to be available from the customers REC who has been engaged to perform the customer side electrical work. The REC should be able to provide an accurate assessment of isolation issues the MP will find when they attend the site. Most retailers have forms or some other collateral supporting the new connections and adds and alts processes that are filled out by the customer and their REC. These should be updated to request relevant technical isolation information. e.g. 'Can you home be isolated from supply without affecting other customers?'. For metering works that are not driven by the customer (meter faults, family failures, retailer new deployments) it is less likely that accurate technical information about the isolation arrangements will be available prior to a site visit. Provision of photos of the metering installation by the customer may be useful in identifying potential shared fusing situations or other obvious issues that commonly stop meter exchanges from proceeding e.g. defective meter boards, not enough space on meter board etc.

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2. Enable the MC to interrupt supply of customers who are not the customer of the retailer who has requested the work.

Currently the MC is unable to interrupt supply if it affects customers other than those requesting or having the metering works done. While the POC rule changes have transferred the responsibility for metering from the LNSP to Retailer and MC it has not transferred all the regulatory levers that make the work efficient. While the primary customer will have received the required 4-business day notice under the NERR, any secondary customers (most likely only be identified at the time of the site visit) will not have received this notification. Authorising the MC to affect a short interruption to these secondary customers is an effective method of reducing the rate of deferrals and make metering work more efficient – DB's have always had this right). Questions related to notification to secondary customers' needs to be addressed however customers should be able to waive the notification period (as is currently proposed by the Australian Energy Council rule change). In situations where only one or two other customers are impacted, seeking permission in person from the secondary customers on the day may allow the work to proceed. Should the MC be authorised to perform the isolation then they will also take on the responsibility of issuing the interruption notifications. Note: the outage expected for a secondary customer is likely to be less than the primary customer (10 to 20 minutes). This interruption will allow the MP to install an isolation point for the primary customer to allow that customer to remain off supply while supply to the secondary customer is re-established.

In order to give MC the authority to interrupt supply then changes to the NERR will be required. See appendix A for potential drafting changes to provide this authority.

3. Utilising Live Isolation procedures where it is safe to do so.

Use of a live isolation procedure is available to metering businesses. Live isolation may be done where there is no other reasonable isolation method available and can be used to facilitate the installation of a meter protection device. Use of live isolation must meet jurisdictional HSE legislation and the scenarios under which it may be used may vary by metering companies based on the businesses risk profile.

While the use of live isolation may appear to be a panacea for a number of the isolation issues discussed in this paper, there will be many situations where physical limitations at the site will mean the safety requirements for this procedure will not be met and deferral of the work and engagement of the DB to isolate will be required.

The use of live isolation procedures to carry out work is questionable under workplace health and safety legislation where electrical workers are required to carry out work deenergised. The NEM rules not permitting isolation and hence elevating risks for electrical workers may be problematic.

4. Allow MC to operate equipment (with appropriate training) that they are currently not authorised to do.

Operation of isolation devices by the MC varies by jurisdiction. In all jurisdictions, the MC may operate an isolation device (fuse) if it is on the meter panel. If an isolation point is on a customer's pole or other such infrastructure the MC is authorised to operate in QLD and SA however not in NSW. In NSW, an appropriately authorised ASP may be engaged to interrupt supply to affect a meter exchange. The table below describes the isolation points and who is entitled to operate them in different jurisdictions.

1. SPD on Meter Panel	NSW	✓	QLD	✓	SA	✓
2. MPD/MIP on Meter Panel						
3. SPD on Barge Board or Fascia						
4. SPD on Private Pole						
5. SPD in Private Cabinet or Turret (Underground)	NSW	*ASP	QLD	✓	SA	✓
6. SPD on DB Pole						
7. SPD in DB Cabinet or Turret (Underground)						
8. SPD in DB underground pit	NSW	*ASP	QLD	✓	SA	x

*ASP means an ASP can be engaged to perform the live isolation and/or operate the isolation equipment.

Where deferral of metering works cannot be avoided

Once isolation issues have been identified and cannot be addresses at the time of the initial visit the only option currently available to the MC is to defer the works and for the DB to engaged to perform a 'Temporary Isolation'. DB's have advised that they require a 25-35 business day lead time to

schedule this work. While costs for this service have not yet be fully exposed it is expected that DB's will charge more than \$400 per event.

A number of DB's have advised that they will only perform this service at a specified time of day e.g. 8am to 8:30am, and that contestable metering providers are currently identifying approximately 30 – 50 jobs per day will require the DB to attend. It is expected that this volume is likely to increase as contestable providers work through the aged 'family failure' meter fleets. Given the constraints to perform temporary isolations imposed by the DB's, it is difficult to see how DB's will service the anticipated demand for temporary Isolations requests without adding further delay to the customer.

To address the negative impacts of this delay and associated high costs, the following initiatives should be considered.

5. Enable the MC to issue interruption notices and interrupt supply of customers who are not the customer of the retailer who has requested the work.

Where shared fusing arrangements have resulted in a deferral of metering work, rather than engaging the DB to perform the temporary isolation of the site it is reasonable that the MC, with appropriately qualified resources should be able to perform this work as long as notification requirements are met. Authorising the MC to perform this work is expected to reduce the number of visits to the site by 50% compared to engaging the DB. To enable the MC to issue the appropriate notifications and perform the interruption the MC must also:

- have access existing market report - NMI Discovery type 1 which uses meter number and/or address details (collected during the initial visit) to determine the current retailer.
- be authorised to request customer contact details (including Life Support details) from the current retailer (or DB) for the purposes of interruption notification.
- provide the appropriate notices to the customer and each customers retailer
- be authorised to interrupt supply for a short period to allow the installation of the appropriate fusing (meter protection device) on the primary NMI.

6. Adopt a more equitable cost recovery mechanism related to the isolation of more complex sites.

As previously discussed, isolation issues typically arise from legacy metering arrangements put in place by the DB under regulations that were permitted at the time. The added cost related to isolation at these sites is material. To impose these increased costs directly to the customer or the customers retailer appears to less than equitable when the metering arrangements were established by the DB. Where the 'Temporary Isolation' is performed by the DB, the retailers will receive the charge and will have the choice to pass this on or share it across their customer base. A more equitable approach may be for these charges to be included in the appropriate DB tariff (supply charge?) so that these are shared across the entire customer base.

Multiple supply interruptions to Multi-Occupancy customers

This issue is not an isolation issue per se, but a negative customer experience issue caused by multiple isolations events at larger multi-occupancy sites, typically to address family failures. This is likely to be material at sites with 3 or more customers.

It is anticipated that these will become an issue when:

- a family failure for a set of meters is declared
- these appear on a multi-occupancy - Family failures on multi-occupancies are likely to impact more than one meter
- shared fusing arrangements exist – isolation to an individual meter without impacting other customers is not possible.

Under POC the remediation for each of these meters falls to the retailer. Upon notification from the DB each retailer must assign an MC for each failing meter. The MC is required to resolve the 'malfunction' within 10 days or else raise an AEMO exemption with a resolution plan providing a date by which the malfunction will be addressed.

Without coordination between retailers and/or MC's to arrange metering works at the same time, customers are likely to experience multiple interruptions as each MC exchange their own meters.

A potential strategy to avoid these issues are:

- Seek better information from the DB – The DB is the only party that has any opportunity to identify that a family failure impacts a multi-occupancy. DB's currently inform retailers at the individual NMI's level. Should the retailer be informed that a family failed NMI is potentially part of a multi-occupancy then the retailers can inform the MC who can take appropriate steps to confirm this and take a more managed approach to the minimise customer impacts. Simple address matching may indicate the potential for multiple family failures at multi-occupancies.
- Retailers to agree to avoid multiple interruptions by ensuring metering works are performed under a single isolation outage.
- MC should be given the ability to determine the current retailers for family failed meters found at a multi-occupancy shared fusing site. This would allow the MC to contact the retailers and advise of the situation and allow for a coordinated visit to perform the meter exchanges under a single isolation. This would require an MC being able to use NMI discovery type 1 using address and/or meter serial number.
- An alternative is for the DB's to attend these sites ahead of the metering work and install individual fusing for each family failed meter to allow a subsequent visit arranged by the MC to perform the meter exchange with a shared interruption.

Appendix A

Meter Coordinator planned interruption means an *interruption* of the supply of electricity to a premise that is the consequence of performing a Retailer planned interruption under Rule 59C

Meter Coordinator interruption to supply

(1) A Metering Coordinator may, subject to and in accordance with any requirements of the energy laws, arrange a *Meter Coordinator planned interruption*.

(2) The Metering Coordinator must notify each affected customer by any appropriate means of the *Meter Coordinator planned interruption* at least 4 business days before the date of the *interruption* unless varied by the customer.

(3) The notification must:

(a) specify the expected date, time and duration of the *Meter Coordinator planned interruption*; and

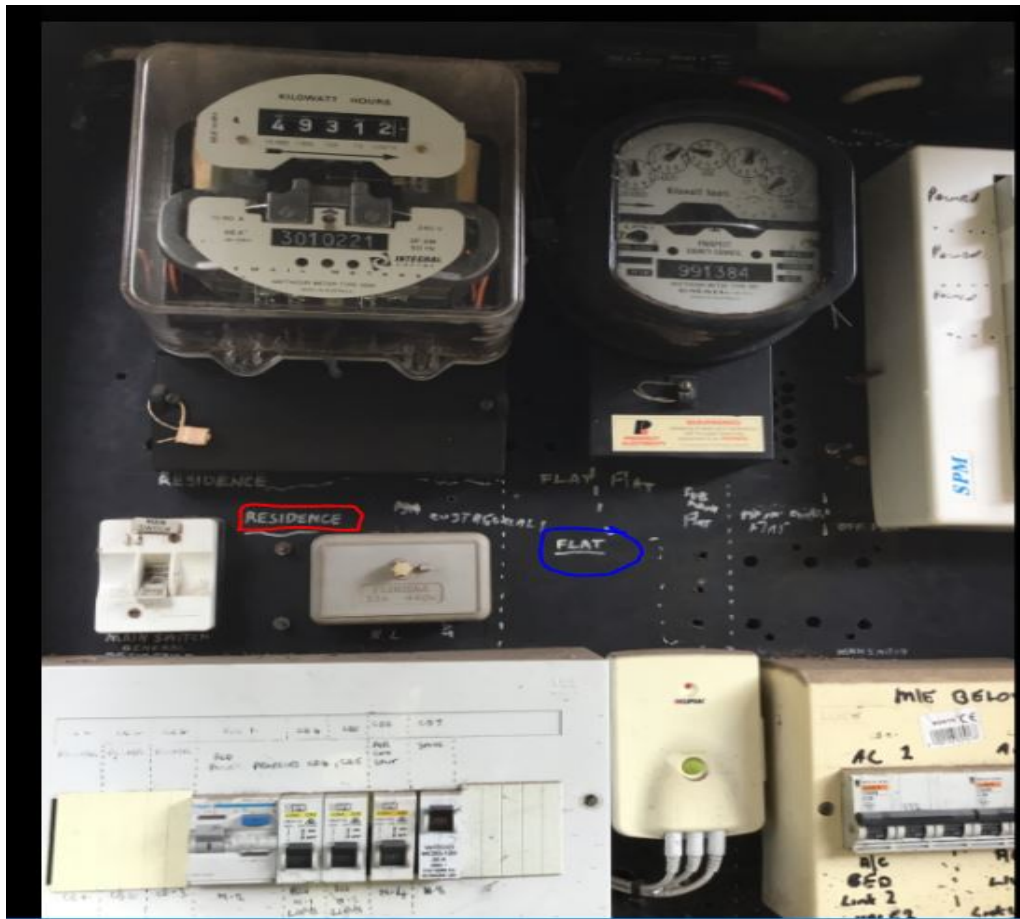
(b) include a telephone number for enquiries (the charge for which is no more than the cost of a local call); and

(c) include a statement that any enquiries regarding the *Meter Coordinator planned interruption* are to be directed to the **Meter Coordinator**.

Appendix B

Shared fusing

Example 1. - Below is a simple example of a shared metering panel for metering for two NMI's. These meters share a single service fuse.



Example 2. - The following picture shows a board that has four separate NMI's fused by two service fuses.

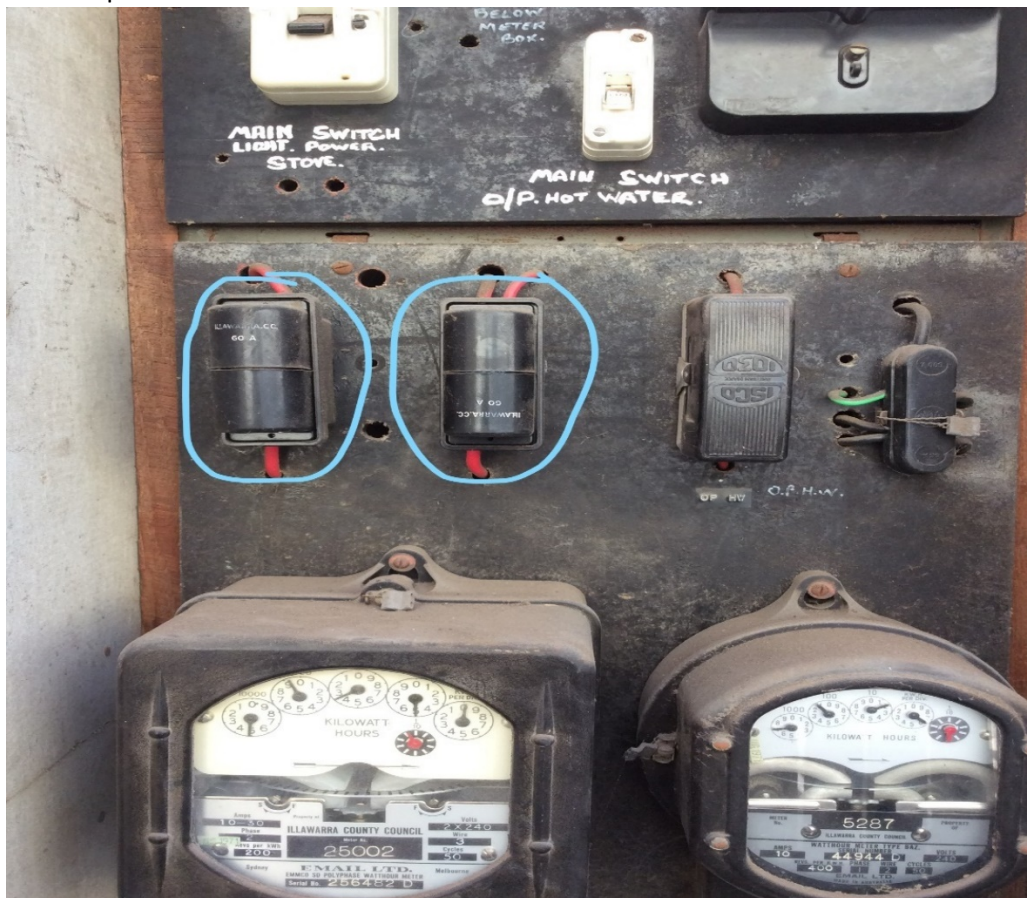


Example 3. - The following picture shows a more complex board services many NMI' with a single Isolation point.



No reasonable isolation point

Example 4. - A service fuse exists but its operation will present a safety hazard - Examples of this are legacy asbestos fuse holders that have potentially degraded to a point where operation has the potential to expose hazardous material to the technician. Network businesses have instructed MC's not to operate this infrastructure. As the MC has no other method of isolation they must defer the metering works until a coordinated revisit with the DB or other suitably qualified person who will perform the isolation so that metering work can compete.



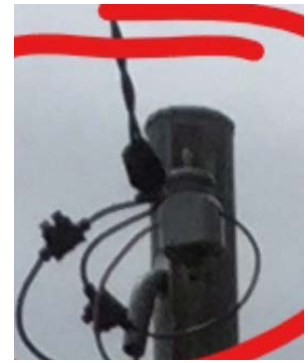
Example 5. - Unable to access fuse – this is where the point of isolation exists but is no longer accessible. In this example a carport has been constructed that limits safe access to the service fuse. This will be in contravention of the customer's connection agreement. It is likely a DB would require the customer to resolve this issue.



Example 6. - Unable to access fuse. This following example shows the isolation point obscured by vegetation. Customer would be required to resolve this issue before metering work can be performed.



Example 7. – Safety issue - This is where any attempt to perform isolation may be a HSE issue or result in rapid deterioration of the site and potential prolonged off-supply situation. The example below is a customer pole that was accessed as unstable and not fit for a ladder approach.



Example 8. - Unable to access fuse - In the below example porcelain bell housing fitted are difficult to operate and are subject to total failure when pulled with a fuse stick. Should they fail a simple job becomes much more complex with a customer left off supply.

